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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/893,619	06/29/2001	Amy R. Griffin	M4065.0467/P467	4918

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EXAMINER	
FOX, CHARLES A	

ART UNIT	PAPER NUMBER
3652	

DATE MAILED: 12/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/893,619	GRIFFIN, AMY R.
	Examiner	Art Unit
	Charles A. Fox	3652

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *October 6, 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4,7-13,17-28,31-35 and 39-46* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,7-13,17-28,31-35 and 39-46* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *22 January 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

In view of the appeal brief filed on October 6, 2004, PROSECUTION IS HEREBY REOPENED. A new ground of rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.113 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1,8-10,11,12,25,32 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beach in view of Bressler et al. In regards to claims 1 and 25 Beach US 2,931,519 teaches an apparatus for positioning an object comprising:

a first section (10) having a lifting mechanism (12) capable of movement in a vertical direction;

a second section (11) disposed over said lifting mechanism (12) and capable of moving with said lifting mechanism, said second section having a first sliding mechanism, said first sliding mechanism comprising a block (113) and a lead screw (110) for moving said block; and

a third section (13) disposed over said sliding mechanism and attached to said block ,capable of moving in response to said lifting and sliding mechanisms, wherein said third section has a surface (a) for supporting an object. Beach does not teach the slide mechanism as having rails and slider blocks. Bressler et al. US 6,136,375 teaches a linear slide assembly comprising :

a first section (22) with a pair of guide rails (24);

a second section (32) with guide blocks (30);

wherein said guide blocks engage said rails;

a lead screw actuator (64) for moving the second section relative to the first section in a direction parallel with said guide rails. It would have been obvious to one of ordinary skill in the art, at the time of invention to provide the device taught by Beach with the guide rails and blocks taught by Bressler et al. in order to keep the first and second sections in alignment at all times while allowing for linear adjustments as needed.

In regards to claims 8 and 9 Beach further teaches that the lifting section comprises hydraulic cylinders (75) and a source of pressurized hydraulic fluid (96).

In regards to claims 10 and 11 Beach also teaches the apparatus as having wheels (18) that allow the apparatus to move in a horizontal direction that is

perpendicular to said first horizontal travel direction of said third section, and that wheels further comprise a clearance between said first section and an underlying surface, whereby said apparatus can clear obstacles when moving in any horizontal direction.

In regards to claim 12 Beach further teaches providing a third section (132) for moving a load in a transverse direction in relation to the first sliding section, said third section comprising:

a second sliding mechanism (134,135,136);

a forth section (140) disposed over said second sliding mechanism capable of motion in the vertical direction, first horizontal direction and second horizontal directions.

In regards to claims 32 and 33 Beach further teaches that the lifting section comprises hydraulic cylinders (75) and a source of pressurized hydraulic fluid (96).

Claims 2-4,7,26-28 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beach in view of Bressler et al. as applied to claims 1 and 25 above, and further in view of Mills et al. Beach and Bressler et al. teach the limitations of claims 1and 25 as above, they does not teach using a jack screw or a pneumatic device as a lifting means. Mills et al. US 4,461,455 teaches a device for lifting aircraft engines wherein a first lift assembly is a series of jack screws (64) and a second lift assembly is a series of pneumatic lifts (54,120) wherein the two lift assemblies work in tandem to raise the load to its proper position, Mills also teaches providing a pressurized gas source for pneumatic lifting assemblies (54,120).

It would have been obvious to one of ordinary skill in the art, at the time of invention to provide the lift assemblies taught by Mills et al. in the device taught by Beach in order to allow the apparatus to align the object being lifted with its intended receiver in a manner that minimizes the chance of damage to the object while it is being mounted.

Claims 13,17,19,20-24 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beach in view of Mills et al. and further in view of Nemoto. In regards to 13,17, 19 and 34 Beach teaches an apparatus for positioning an object comprising:

a base section (10) having a lifting mechanism (12) capable of movement in a vertical direction;

a first section (11) disposed over said lifting mechanism (12) and capable of moving with said lifting mechanism, said second section having a first sliding mechanism, said first sliding mechanism comprising a block (113) and a lead screw (110) for moving said block; and

a second section (13) disposed over said sliding mechanism and attached to said block ,capable of moving in response to said lifting and sliding mechanisms, wherein said second section has a surface (a) for supporting an object. Beach does not teach the lifting mechanism being a combination of a manual jack screw and a pneumatic lift device. Mills et al. US 4,461,455 teaches a device for lifting aircraft engines wherein a first lift assembly is a series of jack screws (64) and a second lift assembly is a series of pneumatic lifts (54,120) wherein the two lift assemblies work in tandem to raise the load to its proper position, Mills also teaches providing a pressurized gas source for

pneumatic lifting assemblies (54,120). Mills et al. do not teach the jackscrews as being manually actuated. Nemoto US 6,271,657 teaches a lifting device (30) for a semiconductor teat head wherein a screw (11) is manually turned by crank (31) to cause the device to lift an object placed upon it.

It would have been obvious to one of ordinary skill in the art, at the time of invention to provide the device taught by Beach with the lift assemblies taught by Mills et al. and to operate them manually as taught by Nemoto in order to allow the apparatus to align the object being lifted with its intended receiver in a manner that minimizes the chance of damage to the object while it is being mounted.

In regards to claims 20 and 21 Beach further teaches that the lifting section comprises hydraulic cylinders (75) and a source of pressurized hydraulic fluid (96).

In regards to claims 22 and 23 Beach further disclose the apparatus as having wheels (18) that allow the apparatus to move in a horizontal direction that is perpendicular to said first horizontal travel direction of said third section, and that wheels further comprise a clearance between said first section and an underlying surface, whereby said apparatus can clear obstacles when moving in any horizontal direction.

In regards to claim 24 Beach further teaches providing a third section (132) for moving a load in a transverse direction in relation to the first sliding section.

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Beach, Mills et al. and Nemoto as applied to claim 17 above, and further in view of Bressler et

al. Beach, Mills et al. and Nemoto teach the limitations of claim 17 as above they do not teach the slide mechanism as having guide rails and guide blocks.

Bressler et al. teaches a linear slide assembly comprising :

a first section (22) with a pair of guide rails (24);

a second section (32) with guide blocks (30);

wherein said guide blocks engage said rails;

a lead screw actuator (64) for moving the second section relative to the first section in a direction parallel with said guide rails. It would have been obvious to one of ordinary skill in the art, at the time of invention to provide the device taught by Beach, Mills et al. and Nemoto with the guide rails and blocks taught by Bressler et al. in order to keep the first and second sections in alignment at all times while allowing for linear adjustments as needed.

Claims 35,39,40,41,44, and 45 are rejected under 35 U.S.C. 103(a) by Beach in view of Mills et al. and further in view of Nemoto. In regards to claims 35,41,42 and 44 Beach US 2,931,519 discloses the method of positioning an object, comprising the steps of:

providing a table having a base section (14), a middle section and a support section (60) adapted to move vertically and horizontally;

placing an object (L) on said support section;

moving said table to a desired destination for said object;

operating a provided lift mechanism to move said support section vertically;

operating a provided slide mechanism to move said support section horizontally;

said object being positioned in a desired location by said moving and operational steps;

manually operating a hydraulic system to lift the device.

Beach does not teach the lift mechanism as using pneumatic lift devices. Mills et al. US 4,461,455 teaches a method of lifting aircraft engines wherein a first lift assembly, a series of jack screws (64) and a second lift assembly, a series of pneumatic lifts (54,120) are provided, wherein the two lift assemblies work in tandem to raise the load to its proper position, Mills also teaches providing a pressurized gas source for pneumatic lifting assemblies (54,120). Mills et al. do not teach the jackscrews as being manually actuated. Nemoto US 6,271,657 teaches an apparatus for positioning test heads where the step of actuating a lift mechanism comprises manually rotating an input shaft attached to the jacking mechanisms. It would have been obvious to one of ordinary skill in the art, at the time of invention to modify the methods of moving an object taught by Beach with the lift methods taught by Mills et al. and to operate them manually as taught by Nemoto in order to allow the apparatus to operate independently of any power source, thereby allowing the apparatus to work where no immediate power source is available, as well as providing a combination of lift devices between the base frame and the middle frame.

In regards to claims 39 and 45 beach further discloses the steps of operating the slide mechanism comprises manually rotating a shaft attached to a lead screw.

In regards to claims 40 and 46 Beach further discloses the step of moving the table comprises rolling said table utilizing wheels (18).

Claim 43 is rejected under 35 U.S.C. 103(a) as being unpatentable over Beach in view of Mills et al. and Nemoto as applied to claim 41 above, and further in view of Shiiba et al. Beach ,Mills et al. and Nemoto teach the limitations of claim 41 as above, they do not teach the lift mechanism as being pneumatically actuated. Shiiba et al. US $,643,630 teaches a lift device whose operation comprises the step of supplying a pressurized gas to a gas cylinder assembly. It would have been obvious to one of ordinary skill in the art, at the time of invention to modify the step of operating the lift mechanism taught by Beach, Mills et al. and Nemoto by providing gas to the actuation system as taught by Shiiba et al. in order to make use of a readily available source of power that requires no special knowledge to tap into and use.

Response to Arguments

Applicant's arguments with respect to claims 1,8-12,25 and 32-34 have been considered but are moot in view of the new ground(s) of rejection. Applicant argued that block (11) does not slide, this is conceded by the examiner, a typographical error lead to the block being labeled (111). The block the examiner meant to call attention to is element (113), the rejections have been changed to reflect this fact.

In regards to the motivation to combine Beach and Bressler as argued on pages 12-14 of the appeals brief the examiner stands by the combination and the motivations for making the combination are valid. Both devices are used to lift and align objects and the block and slider mechanism of Bressler is a functional equivalent of the telescopic tubes of Beach. One of ordinary skill in the art of lifting devices would have been aware of both types of guide mechanisms and know that they are equivalent in use and both

have the same expected results when used as shown in the reference. Therefore the combination is within the grasp of one of ordinary skill in the art.

Applicant's arguments with respect to claim 12 have been considered but are moot in view of the new ground(s) of rejection. The rejection has been expanded to make the examiners position more clear to the applicant.

Applicant's arguments against the rejections of claims 2-4,7,26-28 and 31 have been fully considered but they are not persuasive. Applicant argues there is no motivation to combine the Mill reference with Beach and Bressler. Mills identifies a problem with earlier device, namely that part may be damaged during lifting and alignment with a receiving device. They solve this problem by adding air cylinders to the lift device to limit the force the device can apply. This is motivation to modify the Beach reference as set forth in the above rejections.

In regards to the arguments against the combination of Beach. Mills and Nemoto relating to claims 13,17,19-24 and 34 the combination is deemed valid by the examiner. Beach teaches a manually operated lift for an object, and Mills teaches using jacks and pneumatic cylinders as a lifting means. Those references are properly combinable as outlined above. Nemoto was introduces as a teaching for manually lifting an object with jacks. One of ordinary skill in the art of lift devices would have been aware of the many ways of manually lifting an object, Nemoto is cited in order to show a structural equivalent to the manual device taught by Beach.

Applicant's arguments with respect to claims 35-46 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles A. Fox whose telephone number is 703-605-4294. The examiner can normally be reached between 7:00-5:00 Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eileen D. Lillis can be reached at 703-308-3248. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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12-27-04

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